Abstract

Flat plate antenna with a rotating field, comprising a central loop and eccentric loops, and system for identification by radiofrequency

The antenna comprises a central loop (1) and four adjacent coplanar eccentric loops (2). The central loop (1) creates a magnetic field that is essentially perpendicular to the antenna. The centres of gravity of the four eccentric loops (2) are essentially located on the periphery of the central loop (1) and the eccentric loops (2) are supplied in such a way as to predominantly create a rotating field in a plane parallel to the plane of the antenna. The eccentric loops (2) can be associated in pairs of non-adjacent loops in such a way as to generate electromagnetic fields of opposite phases in the respective pair. In this way, the two loops of a pair can be connected such that the same current flows through them in opposite trigonometric directions. A radiofrequency generator (7) can supply first (S1) and second (S2) excitation signals alternately on two outputs (8, 9), respectively to the central loop (1) and to the eccentric loops (2).

(Figure 4)